Flight-Testing Newton's Laws			
2010 Science			
Standards of Learning			
Virginia Science			
Grades 9-12 (Physics)			
Activity/Lesson	**State**	**Standards**	
Session-10 (1-5)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-10 (1-5)	VA	SCI.9-12.PH.5.b	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include uniform circular motion
Session-10 (1-5)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include Newton’s laws of motion;
Session-10 (1-5)	VA	SCI.9-12.PH.5.e	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include gravitation;;
Session-1 (1-17)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-1 (1-17)	VA	SCI.9-12.PH.5.b	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include uniform circular motion
Session-1 (1-17)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include Newton’s laws of motion;
Session-1 (1-17)	VA	SCI.9-12.PH.5.e	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include gravitation;;
Session-2 (1-10)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-2 (1-10)	VA	SCI.9-12.PH.5.b	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include uniform circular motion

Session-2 (1-10)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts includeNewton’s laws of motion;
Session-2 (1-10)	VA	SCI.9-12.PH.5.e	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include gravitation;;
Session-3 (1-6)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-4 (1-11)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-5 (1-6)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-5 (1-6)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include Newton’s laws of motion;
Session-6 (1-8)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-6 (1-8)	VA	SCI.9-12.PH.5.b	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include uniform circular motion
Session-6 (1-8)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include Newton’s laws of motion;
Session-6 (1-8)	VA	SCI.9-12.PH.5.e	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include gravitation;;
Session-7 (1-5)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;

Session-7 (1-5)	VA	SCI.9-12.PH.5.b	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include uniform circular motion
Session-7 (1-5)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include Newton’s laws of motion;
Session-7 (1-5)	VA	SCI.9-12.PH.5.e	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts include gravitation;;
Session-8 (1-9)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-8 (1-9)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts includeNewton’s laws of motion;
Session-9 (1-7)	VA	SCI.9-12.PH.3.b	The student will investigate and understand how to demonstrate scientific reasoning and logic. Key concepts include analysis of how science explains and predicts relationships;
Session-9 (1-7)	VA	SCI.9-12.PH.5.d	The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes. Key concepts includeNewton’s laws of motion;